

### **Amendments to the Claims:**

This listing of the claims will replace all prior versions and listings of claims in the application.

### **Marked-up Listing of Claims:**

1. (currently amended) A pharmaceutical pig ~~for transportation of a liquid radiopharmaceutical in a syringe, the pharmaceutical pig~~ comprising:

~~an elongate polymer~~ base comprising a base shielding element made of a radiation-blocking material, having a base shell that completely encloses a the base shielding element and that is made of a polymer material, and having a first hollow center section defined in the base;  
and

~~an elongate polymer cap that is removably attached to the elongate polymer base,~~  
wherein the ~~elongate polymer cap~~ comprises a cap shielding element made of a radiation-blocking material, having a second hollow center and a cap shell, that completely encloses a the cap shielding element and that is made of a polymer material, and a second hollow center section defined in the cap.

2. (currently amended) The pharmaceutical pig of Claim 1, wherein the ~~elongate polymer cap~~ is removably attached to the ~~elongate polymer base~~ through ~~threaded interconnections~~ complimentary threads located on the ~~elongate polymer cap~~ and the ~~elongate polymer base~~.

3. (currently amended) The pharmaceutical pig of Claim 2, wherein the ~~threaded interconnections~~ located on the ~~elongate polymer cap~~ and the ~~elongate polymer base~~ do not allow the ~~elongate polymer cap~~ to rotate more than three hundred and sixty degrees (360°) in relation to the ~~elongate polymer base~~.

4. (cancelled)

5. (currently amended) The pharmaceutical pig of Claim 2, wherein the ~~threaded interconnections~~ located on the ~~elongate polymer cap~~ and the ~~elongate polymer base~~ do not allow

the ~~elongate polymer cap~~ to rotate more than ninety degrees (90°) in relation to the ~~elongate polymer base~~.

6. (currently amended) The pharmaceutical pig of Claim 1, wherein the ~~elongate polymer cap~~ shell and the ~~elongate polymer base~~ includes shell are made of plastic material.

7. (currently amended) The pharmaceutical pig of Claim 6, wherein the plastic material ~~includes a~~ comprises polycarbonate resin.

8-9. (cancelled)

10. (currently amended) The pharmaceutical pig of Claim 1, wherein a bottom portion of the ~~elongate polymer base of the pharmaceutical pig~~ is substantially bell-shaped.

11. (currently amended) The pharmaceutical pig of Claim 1, wherein the ~~elongate polymer base of the pharmaceutical pig~~ includes a top portion that is substantially cylindrical and a bottom portion that is substantially bell-shaped, wherein the bottom portion includes a plurality of flattened ~~sections~~ portions.

12. (cancelled)

13. (currently amended) The pharmaceutical pig of Claim 1, wherein the ~~elongate polymer base of the pharmaceutical pig~~ includes a top portion having a first diameter, a middle portion having a second diameter and a bottom portion having a third diameter, wherein the second diameter is less than the first diameter and the second diameter is less than the third diameter.

14. (currently amended) The pharmaceutical pig of Claim 1, wherein the ~~elongate polymer cap of the pharmaceutical pig~~ includes a top portion having a fourth diameter and a bottom portion having a fifth diameter, wherein the fourth diameter is less than the fifth diameter.

15. (currently amended) The pharmaceutical pig of Claim 1, wherein  
~~the elongate polymer base of the pharmaceutical pig includes a top portion, a middle portion and a bottom portion, and~~  
~~the elongate polymer cap of the pharmaceutical pig includes a top portion and a bottom portion,~~  
~~wherein the top portion of the elongate polymer base of the pharmaceutical pig includes a plurality of flattened portions and the bottom portion of the elongate polymer cap of the pharmaceutical pig includes a plurality of flattened portions.~~

16. (currently amended) The pharmaceutical pig of Claim 15, ~~wherein each flattened portion of the plurality of flattened portions on the bottom portion of the elongate polymer cap of the pharmaceutical pig includes an arch,~~ wherein the plurality of flattened portions on the bottom portion of the ~~elongate polymer cap of the pharmaceutical pig~~ are substantially aligned in a corresponding relationship with the plurality of flattened portions located on the top portion of the ~~elongate polymer base of the pharmaceutical pig.~~

17. (currently amended) The pharmaceutical pig of Claim 1, further ~~includes comprising~~ a fluid-tight seal located between the ~~elongate polymer cap and the elongate polymer base.~~

18. (currently amended) The pharmaceutical pig of Claim 2, ~~wherein the threaded interconnections include~~ further comprising at least one locking detent associated with the threads.

19. (currently amended) The pharmaceutical pig of Claim 1, wherein the base shielding element includes ~~an open end having~~ a protrusion located near an open end of the base shielding element and adjacent to a shoulder portion of the base shielding element.

20-21. (cancelled)

22. (currently amended) ~~An radiopharmaceutical assembly, including a pharmaceutical pig sized and arranged to transport a syringe, the assembly comprising:~~

~~a syringe having a needle, a barrel, a pair of wing-shaped finger grips, and a plunger; and  
a pharmaceutical pig including comprising:~~

~~an elongate polymer base having a polymer shell that completely encloses molded about an entirety of a base shielding element of the base, the elongate polymer base having a first hollow center section defined therein, wherein the first hollow center section that is sized designed to surround accommodate the needle and at least a portion of the barrel of the syringe; and~~

~~an elongate polymer cap that is removably attached to the elongate polymer base, the elongate polymer cap having a polymer shell molded about an entirety of completely encloses a cap shielding element of and the elongate polymer cap, includes wherein the cap has a second hollow center section defined therein that is sized designed to surround accommodate at least a portion of the plunger of the syringe.~~

23. (currently amended) The radiopharmaceutical assembly apparatus of claim 22, wherein the ~~syringe is selected from the group consisting of conventional syringes and safety syringes~~polymer shells of the cap and the base include polycarbonate resin, and wherein the base shielding element and the cap shielding element include lead.

24. (currently amended) The radiopharmaceutical assembly of claim 22, A method for transporting a syringe in a pharmaceutical pig, the syringe having at least a needle, a barrel, a pair of wing-shaped finger grips, and a plunger, the method comprising:

placing a syringe containing a liquid radiopharmaceutical in a pharmaceutical pig having:

~~an elongate polymer base that completely encloses a base shielding element, the elongate polymer base having a first hollow center section that is sized to surround the needle and at least a portion of the barrel of the syringe and an elongate polymer cap that is removably attached to the elongate polymer base, the elongate polymer cap completely encloses a cap shielding element and the elongate polymer cap includes a second hollow center section that is sized to surround at least a portion of the plunger of the syringe;~~

~~transporting the pharmaceutical pig containing the syringe to a medical facility; and~~

~~transporting the pharmaceutical pig and the used syringe back to the radiopharmacy for disposal of the used syringe wherein the polymer shell of the cap has a flattened portion that is substantially aligned with a flattened portion of the polymer shell of the base.~~

25. (currently amended) The radiopharmaceutical assembly method of claim 24~~22~~, wherein the ~~syringe is selected from the group consisting of conventional syringes and safety syringes~~cap and the base include threads to enable the cap and the base to be releasably attached to one another, and wherein at least one detent is associated with the threads.

26. (currently amended) The radiopharmaceutical assembly of claim 22, wherein the syringe is disposed in the pharmaceutical pig such that the finger grip of the syringe contacts a shoulder of the base near an open end of the base~~A method for producing a pharmaceutical pig having an elongate base and an elongate cap, the method comprising:~~

~~molding a base shielding element in a first mold;~~

~~molding a cap shielding element in a second mold;~~

~~inserting the base shielding element within a third mold and injecting molten polymer material into the third mold so that when the polymer material hardens, the base shielding element is completely enclosed by the polymer material to form an elongate base; and~~

~~inserting the cap shielding element within a fourth mold and injecting molten polymer material into the fourth mold so that when the polymer material hardens, the cap shielding element is completely enclosed by the polymer material to form an elongate cap.~~

27-38. (cancelled)

**Clean Listing of the Claims as Presented:**

1. (currently amended) A pharmaceutical pig comprising:  
a base comprising a base shielding element made of a radiation-blocking material, a base shell that completely encloses the base shielding element and that is made of a polymer material, and a first hollow center section defined in the base; and  
a cap removably attached to the base, wherein the cap comprises a cap shielding element made of a radiation-blocking material, a cap shell that completely encloses the cap shielding element and that is made of a polymer material, and a second hollow center section defined in the cap.
2. (currently amended) The pharmaceutical pig of Claim 1, wherein the cap is removably attached to the base through complimentary threads located on the cap and the base.
3. (currently amended) The pharmaceutical pig of Claim 2, wherein the threads located on the cap and the base do not allow the cap to rotate more than three hundred and sixty degrees (360°) in relation to the base.
4. (cancelled)
5. (currently amended) The pharmaceutical pig of Claim 2, wherein the threads located on the cap and the base do not allow the cap to rotate more than ninety degrees (90°) in relation to the base.
6. (currently amended) The pharmaceutical pig of Claim 1, wherein the cap shell and the base shell are made of plastic material.
7. (currently amended) The pharmaceutical pig of Claim 6, wherein the plastic material comprises polycarbonate resin.
- 8-9. (cancelled)

10. (currently amended) The pharmaceutical pig of Claim 1, wherein a bottom portion of the base is substantially bell-shaped.

11. (currently amended) The pharmaceutical pig of Claim 1, wherein the base includes a top portion that is substantially cylindrical and a bottom portion that is substantially bell-shaped, wherein the bottom portion includes a plurality of flattened portions.

12. (cancelled)

13. (currently amended) The pharmaceutical pig of Claim 1, wherein the base includes a top portion having a first diameter, a middle portion having a second diameter and a bottom portion having a third diameter, wherein the second diameter is less than the first diameter and the second diameter is less than the third diameter.

14. (currently amended) The pharmaceutical pig of Claim 1, wherein the cap includes a top portion having a fourth diameter and a bottom portion having a fifth diameter, wherein the fourth diameter is less than the fifth diameter.

15. (currently amended) The pharmaceutical pig of Claim 1, wherein the base includes a top portion, a middle portion and a bottom portion, and the cap includes a top portion and a bottom portion, wherein the top portion of the base of the pharmaceutical pig includes a plurality of flattened portions and the bottom portion of the cap of the pharmaceutical pig includes a plurality of flattened portions.

16. (currently amended) The pharmaceutical pig of Claim 15, wherein the plurality of flattened portions on the bottom portion of the cap are substantially aligned in a corresponding relationship with the plurality of flattened portions located on the top portion of the base.

17. (currently amended) The pharmaceutical pig of Claim 1, further comprising a fluid-tight seal located between the cap and the base.

18. (currently amended) The pharmaceutical pig of Claim 2, further comprising at least one locking detent associated with the threads.

19. (currently amended) The pharmaceutical pig of Claim 1, wherein the base shielding element includes a protrusion located near an open end of the base shielding element and adjacent to a shoulder portion of the base shielding element.

20-21. (cancelled)

22. (currently amended) A radiopharmaceutical assembly, comprising:  
a syringe having a needle, a barrel, a finger grip, and a plunger; and  
a pharmaceutical pig comprising:

a base having a polymer shell molded about an entirety of a base shielding element of the base, the base having a first hollow center section defined therein, wherein the first hollow center section is designed to accommodate the needle and at least a portion of the barrel of the syringe; and

a cap that is removably attached to the base, the cap having a polymer shell molded about an entirety of a cap shielding element of the cap, wherein the cap has a second hollow center section defined therein that is designed to accommodate at least a portion of the plunger of the syringe.

23. (currently amended) The radiopharmaceutical assembly of claim 22, wherein the polymer shells of the cap and the base include polycarbonate resin, and wherein the base shielding element and the cap shielding element include lead.

24. (currently amended) The radiopharmaceutical assembly of claim 22, wherein the polymer shell of the cap has a flattened portion that is substantially aligned with a flattened portion of the polymer shell of the base.



25. (currently amended) The radiopharmaceutical assembly of claim 22, wherein the cap and the base include threads to enable the cap and the base to be releasably attached to one another, and wherein at least one detent is associated with the threads.

26. (currently amended) The radiopharmaceutical assembly of claim 22, wherein the syringe is disposed in the pharmaceutical pig such that the finger grip of the syringe contacts a shoulder of the base near an open end of the base.

27-38. (cancelled)